



The Parliamentary and Scientific Committee

An Associate Parliamentary Group



**Annual
Report**

2012

THE PARLIAMENTARY AND SCIENTIFIC COMMITTEE
(An Associate Parliamentary Group including Members of the
Associate Parliamentary Engineering Group)

Established 1939

The Parliamentary and Scientific Committee is a primary focus for scientific and technological issues providing a long-term liaison between Parliamentarians and scientific and engineering bodies, science- and engineering-based industry, academia and organisations representing those significantly affected by science. The main aim is to focus on those issues where science and politics meet, informing Members of both Houses of Parliament by indicating the relevance of scientific and technological developments to matters of public interest and to the development of policy.

The Committee meets once a month when Parliament is sitting to debate a scientific or engineering topic and its relationship with political issues. These debates take place in the Palace of Westminster, starting at 5.30pm and are usually followed by informal receptions. Attendance is typically 60–80. Most debates are followed by a working dinner where the informal atmosphere facilitates open and wide-ranging discussion between interested Parliamentarians and those most closely concerned with the evening's topic.

The Committee arranges visits to industrial and scientific establishments. Typically a party of a dozen or so will include two or three Parliamentarians who will thereby have an in-depth introduction to some aspect of the real world of science and technology.

Cover photograph

Elizabeth Tower

Parliamentary copyright images are reproduced with the permission of Parliament



Foreword by the President

The Rt Hon the Lord Jenkin of Roding

Despite the UK's high standing in the world for our scientific achievements, we have long had a reputation for our technophobic tendency.

Cartoons 200 years ago lampooned vaccination; a few years later the medical press firmly advised against pregnant ladies travelling on trains because of the increased risk of miscarriage at speeds above 30mph. More recently we have had the lunacy about MMR vaccines, GM crops, and mobile telephones.

A Lords Science and Technology Report on Higher Education in STEM subjects, chaired by our Treasurer, Lord Willis of Knaresborough, has drawn attention to the struggle to attract students to do science at school and university. (The debate on this Report is well worth reading – *Lords Hansard*, 21st March, 2013, cols 759–88.)

Of course, it is the duty of elected MPs to represent their constituents. Does this lie behind the uphill struggle the Parliamentary and Scientific Committee faces to convey scientific information to Parliamentarians?

Yet, in the last few months, we have brought many to topical meetings on HS2 trains, ash tree die-back, fracking, and food contamination with horsemeat. The secret may be to discuss subjects of immediate concern to the public, and therefore to their constituents. We plan to do more of this.

In the US, things are different. They have absorbed the advantages of GM crops. They have swiftly adopted fracking to extract shale gas. As a result, food and energy prices in the US are much lower than in Europe. When will our willingness to recognise the lessons that science can teach us match theirs?

After the House of Lords 1999 report on "Science and Society", it took a bit of time for the messages to be absorbed. Yet now, things are changing.

We now have some of the best presentation of (and therefore of public enthusiasm for) science since Faraday. David Attenborough has long been a "National Treasure". In his footsteps we have Brian Cox, Melvyn Bragg, Jim Al Khalili, Dara O'Briain, and others. University College London even manages a frequent cabaret ("Festival of the

Spoken Nerd”) which is always sold out. The “Today” programme on BBC Radio 4 is for the most part impeccable in allowing senior scientists the opportunity to describe their latest findings. Our Annual Lunch was told that the discovery of the Higgs boson is bringing in more students to study physics.

As many will know, the P&SC is the oldest All-Party Group in Parliament, having existed since 1939. Many other Groups with similar (but not identical) aims have arisen since then. POST, Sense About Science, CaSE, and learned bodies now inject much needed energy into this area. The British Science Association has long been a champion of science communication.

Your Council recognised the need to avoid duplication of effort, and asked Lord Oxburgh to review the field and to help focus the P&SC into those areas where it could make most impact. We have already implemented some of his recommendations, including the topical discussions referred to above.

Far older than the P&SC is the Royal Institution that recently celebrated its 200th anniversary. It has caused all of us (and I was once a Trustee) who support its achievements and aims, concern to read about its recent problems. These were aired in a recent issue of our journal “*Science in Parliament*”. It is encouraging to learn of a big donation to help the Ri to stay in its historic premises.

Finally, we say a fond farewell to two stalwarts. Peter Simpson retired last Spring as our Scientific Secretary after eight years. We are all grateful to him for his contribution during this time. I am delighted to welcome Alan Malcolm, who knows the P&SC well, to succeed him.

On the national stage, Sir John Beddington is retiring as the Government’s Chief Scientific Adviser. His calm and authoritative insight into a huge range of issues has been most reassuring. Perhaps that gentle West Country accent helped reduce the nation’s pulse rate when confronted with the latest potential nightmare. We look forward to working with his successor Sir Mark Walport in the years ahead.

A handwritten signature in black ink that reads "Patrick Tenhain". The signature is written in a cursive, slightly slanted style.

The Parliamentary and Scientific Committee

An Associate Parliamentary Group

Office-holders 2012

President

The Rt Hon the Lord Jenkin of Roding

Past Presidents

The Rt Hon Lord Waldegrave of North Hill
The Earl of Selborne KBE FRS
HRH The Duke of Edinburgh KG KT FRS
The Lord Soulsby of Swaffham Prior

Vice-Presidents

Dr David Dent
Professor Peter Saunders
Mr Robert Freer
Dr Douglas Naysmith
Dr Desmond Turner
Mr Paul Ridout
Mr Philip Greenish CBE
Mr John Slater

Hon Treasurer

The Lord Willis of Knaresborough

Hon Secretary

Mr Stephen Mosley MP

Chairman

Mr Andrew Miller MP

Deputy Chairman

Mr Tom Blenkinsop MP

Advisory Panel

Dr Stephen Benn
Dr Stuart Taylor
Mr David Youdan

Secretariat

Professor Alan Malcolm
Mrs Annabel Lloyd
3 Birdcage Walk
London SW1H 9JJ
T: 020 7222 7085
F: 020 7222 7189
E: annabel.lloyd@parliament.uk
E: office@pandsctte.demon.co.uk
www.scienceinparliament.org.uk

Council

At the end of 2012 the following were members of the Council:

Dr Stephen Benn
Professor John Bleby
Mr Tom Blenkinsop MP
Dr David Dent
Mr Robert Freer
Mr Philip Greenish
The Baroness Hilton of
Eggardon
Dr T D Inch
Mr Paul Jackson
The Rt Hon Lord Jenkin of
Roding

Professor H Peter Jost
Mr Andrew Miller MP
Mr Stephen Mosley MP
Dr Douglas Naysmith
The Lord Oxburgh
Professor Jane Plant
Mr Paul Ridout
Professor Peter Saunders
The Earl of Selborne
Mr R G Sell
Mr John Slater

The Lord Soulsby of
Swaffham Prior
Mr Ian Taylor
Dr Stuart Taylor
Dr Desmond Turner
The Lord Willis of
Knaresborough
Dr Richard Worswick
Mr David Youdan

Membership 2012

Parliamentary Membership

Any member of either House of Parliament including those hereditary peers in membership of the Committee on 8th November 1999 or British Member of the European Parliament shall be eligible to be a member of The Committee.

House of Lords

Lord Armstrong	Lord Jopling	The Earl of Selborne
Lord Boswell of Aynho	Lord Judd	Baroness Sharp of Guildford
Lord Broers	Lord Kakkar	Lord Sheldon
Lord Brooke of Sutton Mandeville	Lord Krebs	Viscount Simon
Lord Chorley	Lord Lewis of Newnham	Viscount Slim
Lord Clement-Jones	Baroness Lockwood	Lord Soulsby of Swaffham Prior
Lord Craig of Radley	Lord Mackenzie of Culkein	Lord Stevenson of Coddendam
Lord Davies of Coity	Lord McColl of Dulwich	Lord Stoddart of Swindon
Baroness Dean	The Countess of Mar	Lord Stone of Blackheath
Lord Deben	Lord Mason	Lord Taverne
Lord Framlingham	Lord Methuen	Lord Thomas of Macclesfield
Baroness Gibson of Market Rasen	Lord May of Oxford	Baroness Thornton
Baroness Gould of Potternewton	Viscount Montgomery of Alamein	Lord Tombs of Brailes
Baroness Greenfield	Baroness Nicholson of Winterbourne	Lord Trees of the Ross
Baroness Hamwee	Baroness Northover	Lord Trefgarne
Lord Haskel	Lord Oxburgh	Lord Turnberg
Lord Hayhoe	Lord Patel of Dunkeld	Baroness Turner of Camden
Lord Hennessy of Nympsfield	Lord Patten	Lord Vinson of Roddam Dene
Baroness Hilton of Eggardon	Baroness Perry of Southwark	Lord Wade of Chorlton
Lord Howe of Aberavon	Baroness Platt of Writtle	Lord Waldegrave of North Hill
Lord Howie of Troon	Lord Rea	Baroness Walmsley
Lord Hoyle	Lord Rees of Ludlow	Lord Walton of Detchant
Lord Hunt of Chesterton	Lord Ribeiro	Baroness Warwick of Undercliffe
Lord Hunt of Wirral	Lord Roberts of Conwy	Lord Willis of Knaresborough
Lord Jenkin of Roding	Lord Rooker	Lord Winston
	Lord Sainsbury of Turville	

House of Commons

Adam Afriyie	Oliver Colvile	Rt Hon Caroline Flint
Ian Austin	Michael Connarty	Paul Flynn
Bob Blackman	Nic Dakin	George Freeman
Tom Blenkinsop	David Davies	Mark Garnier
Sir Peter Bottomley	The Rt Hon David Davis	Mrs Helen Goodman
Andrew Bridgen	Nigel Evans	Robert Goodwill
Dr Therese Coffey	Robert Flello	Stephen Hammond

Charles Hendry
Julie Hilling
Kelvin Hopkins
Dr Julian Huppert
Hon Bernard Jenkin
David Jones
Andrew Love
Ms Ann McKechin
Esther McVey

Andrew Miller
Austin Mitchell
Stephen Mosley
David Mowat
Brooks Newmark
Chi Onwurah
Richard Ottaway
Rt Hon Dawn Primarolo
Sir James Paice

Alok Sharma
Alec Shelbrooke
Graham Stringer
Ian Swales
Ed Vaizey
Ben Wallace
Tom Watson
Stephen Williams
Dr Sarah Wollaston

Members of the European Parliament

Stuart Agnew
Richard Ashworth
Rt Hon Sir Robert Atkins
Giles Chichester

Andrew Duff
James Elles
Ashley Fox
Julie Girling

Malcolm Harbour
Timothy Kirkhope
Ms Jean Lambert
Marina Yannakoudakis

Hereditary Peers

Lord Birdwood
Earl of Cranbrook
Lord Hacking

Lord Ironside
Lord Kirkwood
Lord Monkswell

Lord Renwick
Earl of Shannon
Viscount Weir

Honorary Members

The Committee may appoint honorary members who by virtue of their standing or their office may appropriately engage in the Committee's activities.

HRH The Duke of Edinburgh

The President, The Royal Society

The President, The Royal Academy of Engineering

Government Chief Scientific Adviser (Professor Sir John Beddington FRS)

Director-General Science and Research (John Alty)

Chief Scientific Adviser, Ministry of Defence (Professor Vernon Gibson FRS)

Chief Scientific Adviser, Department for Energy and Climate Change (Professor David Mackay)

Chief Scientific Adviser, Department for Environment, Food and Rural Affairs (Professor Ian Boyd FRSE)

Chief Scientific Adviser, Department of Health (Professor Dame Sally Davies)

Chief Scientific Adviser, Home Office (Professor Bernard Silverman)

Chief Scientific Adviser, Department for Transport (Professor Rod Smith)

Chief Scientific Adviser, Department for Communities and Local Government (Professor Jeremy Watson)

Chief Scientific Adviser, Department for Business, Innovation and Skills (Professor John Perkins CBE FREng)

Deputy Chief Scientific Adviser, Department for Business, Innovation and Skills (Dr Rupert Lewis)

Life Members

The Committee may also elect up to a maximum of twenty-five life members who, on retirement from Parliament or their institution, will qualify by having served The Committee either as officers or in some other capacity and given valuable service to it. It will be the responsibility of the Council to recommend such former members for this category.

Professor John Bleby
Arthur Butler
Tam Dalyell
Dr Brian Iddon
Dr Tom Inch

Dr Ian Gibson
Professor H Peter Jost
Dr Douglas Naysmith
Richard Page
Sir David Price

Reg Sell
Lord Spicer of Crophorne
Ian Taylor
Dr Desmond Turner
Dr Peter Warren

Individual Members

The Committee may also elect individual members who, on retirement from Parliament or their institution, wish to remain actively engaged in the Committee's activities. Individual membership shall have a term of five years, which shall be renewable. It will be the responsibility of the Council to recommend individuals for this category.

Sir Frederick Crawford
Dr John Dudeney
Professor Michael Elves
Robert Freer

Sir John Kingman
Dr Robert Kirby-Harris
Professor Robert Pickard
Professor Jane Plant

Dr Keith Winters
Dr Richard Worswick

Scientific and Technical Organisations

An organisation or society shall be eligible for election to The Committee as a Scientific and Technical Organisation if the Council is satisfied that it is either:

- (i) A National Institution or Association for qualifying scientists, engineers or technologists; or
- (ii) A Research Organisation which is not of a profit-making character, or part of an individual commercial or profit-making undertaking, and which is either directly engaged in natural or social science, pure or applied, or both providing funds for research to be conducted by other bodies and also taking a direct part in determination of the programmes of such research, or
- (iii) A body, the contribution of which to the scientific life of the country makes its membership, in the opinion of the Council, desirable in order to advance the agreed objects of The Committee.

In reaching a decision with regard to eligibility regard shall be had to the extent to which the branch of science, engineering or technology represented by the applicant organisation is already adequately represented on The Committee.

Note. No organisation which had been elected to membership by The Committee prior to January 1963, shall, however, be rendered ineligible for membership under this sub-clause.

Academy of Medical Sciences
AIRTO
Association for Clinical Biochemistry
Association for Science Education

Dr Helen Munn
Professor Richard Brook OBE FREng
Joe O'Meara
Annette Smith

Scientific and Technical Organisations (continued)

Association of Consulting Scientists	The Chairman, Dr Chris Chatfield
Association of Management & Professional Staffs	Michael Cocks, Tony Harding, Marijke Smith
Association of Medical Research Charities	Sharmila Nebhrajani
The Babraham Institute	Professor Michael Wakelam, Dr Caroline Edmonds
Biochemical Society	Kate Baillie
Biotechnology and Biological Sciences Research Council	Dr Alf Game
BCS, The Chartered Institute for IT	Karen Tuck
BMT Ltd	Peter French
British Antarctic Survey	Professor Alan Rodger
British Council	Dr Claire McNulty, Dr Yasemin Koc
British Ecological Society	Dr Dan Osborn, Ceri Margerison
British Fluid Power Association	Ian Morris CEng
British Geological Survey	Professor John Ludden
British and Irish Association of Zoos and Aquariums	Dr Miranda Stevenson
British Nutrition Foundation	Professor Judy Buttriss
British Pharmacological Society	Jonathan Brüün
British Psychological Society	Mike Laffan, Tanja Siggs
British Science Association	Professor Dame Julia Goodfellow, Sir Roland Jackson Bt
British Society for Antimicrobial Chemotherapy	Mrs Tracey Guise
British Society for Immunology	Professor Adrian Hayday, Ms Judith Willetts
British Trust for Ornithology	Dr Andy Clements
British Veterinary Association	Carl Padgett
CABI	Dr Joan Kelley
Campden BRI	Dr Steven Walker
Cavendish Laboratory	The Secretary
Centre for Environment, Fisheries and Aquaculture Science	Mike Waldock
Chartered Institute of Patent Attorneys	Dr Julian M Potter, R P Jackson, T W Roberts
Clifton Scientific Trust Ltd	Dr Eric Albone
Comino Foundation	John Slater
Dstl	Jonathan Lyle
East Midlands Engineering and Science Professionals	Ian Treacy
Economic and Social Research Council	Professor Paul Boyle, Melanie Knetsch
Energy Institute	Mrs Louise Kingham, Sarah Beacock
Engineering & Physical Sciences Research Council	Atti Emecz, Jenny Aranha
Engineering Professors' Council	Susan Kay
EngineeringUK	Paul Jackson
Food and Environment Research Agency	Professor Robert Edwards, Rob Chilton
Forest Research	Dr P H Freer-Smith
Foundation for Science and Technology	Dr Dougal J Goodman

Scientific and Technical Organisations (continued)

Foundation for Science, Technology and Civilization	Professor Salim T S Al-Hassan, Dr Anne-Maria Brennan
GAMBICA Association	Dr Graeme Philp
Gatsby Technical Education Projects	Dr John Williams
The Geological Society	Edmund Nickless
The Ground Forum	Rodney Chartres, Keith Gabriel, Ms Dianne Jennings
Hazards Forum	Brian Neale, Dr I J Lawrenson
Health and Safety Executive	David Bench
Health Protection Agency	Dr David Heymann, Professor Virginia Murray
Higher Education Funding Council for England	Sir Alan Langlands
Institute of Biomedical Science	N S Kirk, Ms Jill Rodney
Institute of Corrosion	Dr Douglas Mills
Institute of Ergonomics and Human Factors	David O'Neill
Institute of Food Research	Dr Keith Waldron
Institute of Food Science and Technology	Jon Poole, Mrs Lindsey Bagley
The Institute of Marine Engineering, Science and Technology	Dr Bev MacKenzie
Institute of Materials, Minerals and Mining	Dr B A Rickinson, Dr G J M Woodrow
Institute of Mathematics & Its Applications	David Youdan, Professor John R Whiteman
Institute of Measurement and Control	David Kent, Peter Martindale
Institute of Metal Finishing	Dr Peter Farr
Institute of Physics	Professor Paul Hardaker, Professor Peter Main, Dr Beth Taylor
Institute of Physics and Engineering in Medicine	Dr Chris Gibson, Dr Peter Jarritt, Dr Stephen Keevil
Institution of Chemical Engineers	Dr David Brown, Andrew Furlong, Miles Seaman
Institution of Civil Engineers	Mike Chrimes, Graham Sibley
Institution of Engineering Designers	Ms Elizabeth Brodhurst
Institution of Engineering and Technology	Dr Tony Whitehead, Paul Davies, Darren Gladwin, FL Pitt
Institution of Mechanical Engineers	Stephen Tetlow, Kate Heywood
John Innes Centre	Dr Dee Rawsthorne
Licensing Executives Society	Mrs Christi Mitchell, Dr John Roe
Linnean Society of London	Dr Elizabeth Rollinson
London Mathematical Society	Prof P T Saunders, Fiona Nixon, Dr John Johnston
Marine Biological Association	Professor Colin Brownlee, Dr Matthew Frost
Materials UK	Professor Colin Seabrook
Medical Research Council	Louise Wren
The Met Office	John Hirst, John Harmer
The National Endowment for Science, Technology and the Arts	Guy Bilgorri
National Oceanography Centre, Southampton	Professor Edward Hill
National Physical Laboratory	Dr Kamal Hossain, Professor John Pethica

Scientific and Technical Organisations (continued)

Natural England	Andrew Wood, Suzanne Alcorn
Natural Environment Research Council	Professor Duncan Wingham, Parliamentary Liaison Officer
Natural History Museum	Dr Michael Dixon
New Engineering Foundation	Professor Sa'ad Medhat
Nuffield Council on Bioethics	Hugh Whittall, Catherine Joynson
Nutrition Society	Frederick Wentworth-Bowyer, Jennifer Norton
Operational Research Society	Gavin Blackett, Dr Roger Forder
The Physics Factory	Duncan Chamberlain
The Physiological Society	Dr Philip Wright, Chrissy Stokes
Plymouth Marine Laboratory	Professor Stephen de Mora
Prospect	Sue Ferns, Nigel Titchen
Rothamsted Research	Stephen James
Royal Academy of Engineering	Philip Greenish, Dr A M Neville, Professor Michael Wood, Barry Haseltine, Dr William 'Stan' Jones
Royal Astronomical Society	Pamela Mortimer, Professor Andy Fabian
Royal Botanic Gardens, Kew	Professor Monique Simmonds
Royal College of Physicians	Chief Executive
Royal College of Veterinary Surgeons	The President, Professor Sheila Crispin
Royal Institute of Navigation	Peter Chapman-Andrews
The Royal Institution	Dr Gail Cardew
Royal Pharmaceutical Society	The President, Ms Jayne Lawrence
Royal Society	Dr Julie Maxton, Dr Peter Cotgreave, Dr Stuart Taylor
The Royal Society of Chemistry	Dr Robert Parker, Lorraine Martin
The Royal Society of Edinburgh	Sir John Arbuthnott, Dr William Duncan
Royal Statistical Society	Dr Christl Donnelly, Andrew Garratt
The Science Council	Ms Diana Garnham
Science & Technology Facilities Council	Professor John Womersley, Mark Foster
Science Museum	Ian Blatchford
SEMTA	Belinda Peral
Society for Applied Microbiology	Professor Peter Silley, Professor Geoff Hanlon, Philip Wheat
Society for Endocrinology	Ms Rachel Evans
Society for General Microbiology	Daniel Burdass
Society of Biology	Dr Mark Downs, Dr Stephen Benn
Society of Cosmetic Scientists	The President
Society of Dyers and Colourists	Dr Graham Clayton
Society of Occupational Medicine	Ms Hilary Todd
TWI Ltd	Christoph Wiesner, John Wintle
Twycross Zoo	Mrs Suzanne Boardman
UK Deans of Science	Professor Ian Haines
Understanding Animal Research	Barbara Davies
Universities Federation for Animal Welfare	Dr James Kirkwood
The Wellcome Trust	Dr David Lynn
The Worshipful Company of Engineers	Wing Commander Tony Willenbruch

Industrial Members

The Council may also elect to The Committee up to a maximum of 100 Industrial Members, such maximum being subject to modification at any subsequent Annual General Meeting. Such members shall be Industrial Companies registered in the UK or UK nationalised Undertakings or organisations representing a sector of industry. In electing an Industrial Member, the Council shall have regard to the desirability of ensuring that the Industrial Membership as a whole is representative of as wide a range as possible of activities involving Science, Engineering and Technology. In reaching a decision as to eligibility regard shall be had to the extent to which the applicant is engaged in scientific, engineering or technological research.

Abbeyvet Export LLP	Dr Iain MacKellar
Abbott Diagnostics	Andy Bufton
AGC Chemicals Europe Ltd	Tony E Wade
AgChemAccess Ltd	Nick Gooch
Association of the British Pharmaceutical Industry	Dr Louise Leong
AstraZeneca PLC	Nicola Marchant
Autonnic Research Ltd	Dr Chris Shelton
Azotic Technologies Ltd	Dr David Dent
BASF Plc	Dr Geoff Mackey, Andrew Mayer
BP plc	Dr Ellen Williams
British In Vitro Diagnostics Association	Ms Doris-Ann Williams
Brompton Bicycle Ltd	Will Butler-Adams
Chemical Industries Association	Simon Marsh
R S Clare & Co Ltd	Roy Coldwell
Eli Lilly & Company Limited	Dr David Bowman
Geomatrix Earth Science Ltd	Tom Nicols
Global Regulatory Services	Mrs Greer Deal
Helius Energy Plc	Dr Adrian Bowles
Industry Capital Ltd	Isaac Livne
Johnson Matthey Plc	Ian Godwin
LGC Ltd	Dr Derek Craston, David Richardson
L'Oreal UK Ltd	Jeremy Schwartz, Kari Kerr, Julie McManus, Shakila Bik, Katy Gandon
Monsanto UK Ltd	Mark Buckingham
MSD	Dr Rob Pinnock,
Mylnefield Research Services	Dr Nigel W Kerby
Pfizer Limited	Annette Doherty, Dr Devyn Smith, Alan Maine, Dr Adam Heathfield
PHARMAQ Ltd	Dr Benjamin P North
Rolls-Royce	Helen Kennett
Society of Maritime Industries	Paul Ridout, John Murray
Solaris Engineering Ltd	Francis Udorn
Trident Sensors Ltd	Dr W R Simpson
Varley Systems Engineering Limited	David Slater
Wiley-Blackwell	Robert Campbell
Yakult UK Ltd	Dr Linda Thomas

Universities

Universities of the UK, Institutions in Scotland and Northern Ireland equivalent to schools and colleges of individual universities where appropriate shall be eligible for election by the Council. In reaching a decision as to eligibility regard shall be had to the extent to which the applicant is engaged in scientific, engineering or technological research.

University of Aberdeen
University of Bath

University of Birmingham
Bournemouth University
University of Brighton
University of Bristol
University of Cambridge
University of Central Lancashire
City University London
Cranfield University

University of Dundee
University of Durham
University of East Anglia
University of Edinburgh
University of Exeter
University of Greenwich
Harper Adams University College
Heriot-Watt University
University of Hull
Imperial College London
Keele University
Kings College London
University of Leicester
University of Liverpool
London School of Hygiene and Tropical Medicine
London South Bank University
University of Loughborough
University of Manchester
Middlesex University
Napier University
Newcastle University
State University of New York
University of Nottingham

The Open University

Queen Mary, University of London

Professor Albert Rodger
Professor Dame Glynis Breakwell,
Professor Fred Eastham
Professor Richard Williams
Professor John Vinney
Professor Andrew Lloyd
Professor Eric Thomas
Dr Nick Gray
Robert Wallace
Professor Paul Curran
Professor Sir John O'Reilly,
Professor P Hutchinson
Professor Stephen Decent
Professor Andrew Deeks
Professor David Richardson
Professor Sir Timothy O'Shea
Professor Sir Steve Smith
Dr Liz Bacon
Dr David Llewellyn
Ms Ann Marie Dalton
Professor Lynne Frostick
Sir Keith O'Nions
Professor Patrick Bailey
Chris Mottershead
Professor Sir Robert Burgess
Sir Howard Newby
Professor Baron Peter Piot
Professor Rao Bhamidimarri
Professor Chris Linton
Dr John Roberts
Professor Michael Driscoll
Professor Joan K Stringer
Professor Nick Wright
Professor Alexander Orlov
Professor David Greenaway,
Dr Andrew Spowage
Pro-Vice-Chancellor (Research and Enterprise)
Professor Jeremy Kilburn,
Professor Peter McOwan,
Professor Evelyn Welch

Universities (continued)

University of Reading

Royal Holloway, University of London

University of Salford

The University of Sheffield

University of Strathclyde

University of Surrey

University College London

Warwick University

University of Wolverhampton

Sir David Bell,

Professor Derek J Clements-Croome

Professor Paul Hogg

Dr Adrian Graves

Professor Anthony Ryan

Professor J McDonald

Professor Stephen Williamson

Professor Malcolm Grant,

Professor K M Spyer,

Dr Francesca Medda,

Professor David Walker

Professor Stuart Palmer

Professor Geoff Layer,

Professor Nduka Ekere,

Professor Derek Walton

Associate Members

The Council may elect to The Committee as Associate Members the following:

Bodies which, although not engaged in scientific research, represent the interests of those who are significantly affected by science and which, in the opinion of the Council, are in a position to contribute positively to the work of the Committee.

Manches LLP

Passerieu Consulting

Christopher Shelley

Ms Katherine Passerieu

Annual General Meeting

The Annual General Meeting was held at 4.30pm on Tuesday, 12th June 2012 in the Boothroyd Room, Portcullis House. The following extracts from the minutes contain the resolutions passed at the meeting.

Election of Officers, Vice-Presidents and Advisory Panel for 2012

On behalf of members of the Committee, the chairman (Andrew Miller MP) thanked the four retiring office-holders for their support during their period of office:

Vice-Presidents: Professor Julia King
 Professor Alan Malcolm

Advisory Panel: Dr Robert Kirby-Harris
 Mr Philip Greenish

He proposed the election of the following individuals to fill the vacancies:

Vice-Presidents: Mr Philip Greenish
 Mr John Slater

Seconded by Professor Jane Plant and approved by the meeting.

Advisory Panel: Mr David Youdan
 Dr Stuart Taylor

Seconded by Professor Peter Saunders and approved by the meeting.

Finally, he proposed the re-election of all the remaining office-holders, namely:

President: The Rt Hon Lord Jenkin of Roding

Chairman: Mr Andrew Miller MP

Deputy Chairman: Mr Tom Blenkinsop MP

Hon Treasurer: The Lord Willis of Knaresborough

Hon Secretary: Mr Stephen Mosley MP

Vice-Presidents: Dr David Dent
 Professor Peter Saunders
 Mr Robert Freer
 Dr Douglas Naysmith
 Dr Desmond Turner
 Mr Robert Key
 Mr Paul Ridout

Advisory Panel: Dr Stephen Benn

Seconded by Dr Peter Jost and approved by the meeting.

To Receive the Annual Report for 2011

The Chairman outlined the contents of the Annual Report for 2011 and commended it to the meeting. He commented that there had been a change in the Committee's staff with the appointment of Professor Alan Malcolm as Executive Secretary.

He welcomed Stephen Mosley's contribution as chairman of the Programme Committee, which had selected some key topics for meetings. There had recently been some confusion about who was invited to meetings and it was important to bear in mind that the Committee is a membership-based organisation.

The resolution to receive the 2011 Annual Report was seconded by Dr Peter Jost and approved by the meeting.

To Receive the Financial Statement for 2011 Estimates for Income and Expenditure for 2012

The Financial Statement for 2011, which showed a deficit for the year of £3,591, and the Estimates for Income and Expenditure for 2012, showing an anticipated deficit of £4,374 for the year, were presented.

The financial resolutions were seconded by Professor Michael Elves and approved by the meeting.

Subscription Rates for 2013

The chairman expressed confidence that the Committee would overcome its financial deficit by recruitment and proposed that the subscription rates for 2013 should remain at the same level as for 2012.

The proposal to keep subscriptions at 2012 levels was approved by the meeting.

Report from the Council

Charitable Status

The chairman reported that following the proposal approved by the last AGM for the P&SC to seek charitable status, Members of Council had been in detailed discussion with the Charity Commissioners due to their concern over ambiguity with regard to jurisdiction over the Committee's activities while Parliament is dissolved for an election. Discussions were now taking place with the Trustees of the Parliamentary Science and Technology Information Foundation concerning possible benefits of closer association.

Lord Oxburgh's Enquiry

Negative comments published in Research Fortnight and the Guardian had recently been discussed by the Council and Lord Oxburgh had agreed to undertake a review of how Parliament could do science better. The review would look at all Parliamentary sources of information on science (the Libraries, POST and the Select Committees) and would ask how to engage more effectively with members of both Houses; how to encourage such schemes as the Royal Society pairing with MPs and Newton's Apple. SET for BRITAIN, Parliamentary Links Day and Voice of the Future had all been successful in attracting Parliamentary support and would provide a base on which to build.

The chairman appealed to members of the Committee for their help, asking them to send their ideas as to how the Committee could be more effective in communicating with Parliament to him, to Lord Oxburgh or to the Secretariat.

Membership

The chairman reported that six new Parliamentary members of the Committee had been recruited following the SET for BRITAIN event in March and that he had recently welcomed two scientific organisations and six companies as new members of the Committee.

Future Programme

The chairman outlined plans for future meetings, including a special meeting on Tuesday 10th July when there would be a celebration of British Scientific Achievement over the last 60 years at which the speakers would be Professor Brian Cox, Professor Dame Nancy Rothwell and Professor Lesley Yellowlees.

Science in Parliament

Mr Miller thanked all those who, during the past year, had supported *Science in Parliament* by sponsoring covers and taking entries in the Directory; thanks were also expressed to those who contributed articles, book reviews and letters. The Summer issue of *Science in Parliament* would focus on the Olympic and Paralympic Games.



Report from Chairman

Andrew Miller MP

2012 was another highly successful year for the Parliamentary and Scientific Committee.

We ran ten discussion meetings on topics as varied as High Speed Train 2, Animal Welfare, New Sources of Energy and the Health Benefits of the Right MicroOrganisms in our Gut. A full list is elsewhere in this Annual Report, and accounts of the meetings are available in *Science in Parliament*.

It is not fair to single out one meeting, but the Queen's Diamond Jubilee, together with the Olympics, seemed to create an aura of the UK congratulating itself. We joined in by celebrating 60 years of British scientific achievements, and welcomed Dame Nancy Rothwell, Professor Lesley Yellowlees and Professor Brian Cox to review Biology, Chemistry and Physics respectively.

SET for Britain, established 15 years ago by the late Eric Wharton, and now organised under the auspices of the P&SC, grows from strength to strength. Each year a new record number of entries is achieved, severely taxing the judges to whom we are enormously grateful. We are also greatly indebted to our sponsors both for their financial support, but also for their presence in order to present the medals.

Parliamentary Links Day is now an established part of the political year, and provides an opportunity for sound bites from across the scientific spectrum to be made available to Parliamentarians in a concise format.

Voice of the Future is a comparative innovation, devised by Dr Stephen Benn of the Society of Biology, where MPs are cross-examined à la Select Committee by young scientists. It is an invigorating experience for all of us MPs involved and I am delighted to support it and welcome the Speaker's commitment to it.

Our contribution to National Science and Engineering Week was to host a morning seminar on Why Mathematics Matters. We are seeking to involve Mathematics more fully in our activities, and to this end, published an article to coincide with the

publication of a report from the London Mathematical Society on “Women in Mathematics”.

Our Guest of Honour at the Annual Lunch, John Womersley from the Science and Technology Facilities Council, gave a superb overview of the importance of large, expensive items in supporting science across the board. In particular, the recent verification of the existence of the Higgs Boson at the Large Hadron Collider was a perfect example.

As our President, Lord Jenkin, has mentioned, it is clear that our work overlaps with other bodies which have emerged during the 73 years of our existence. This in itself is a healthy sign, but would benefit from better coordination to avoid unnecessary and extravagant duplication. Ron Oxburgh generously gave of his time to examine these issues, and we are working through some of the proposals which emerged.

Peter Simpson has retired after over eight years’ dedicated service, and has been succeeded by Alan Malcolm, who joined us as Executive Secretary. Alan is working hard both on encouraging new members and developing our programme.

We have run small financial deficits for several years, but I am happy to say that this has now been resolved. The budget for 2013 anticipates an even healthier outturn.

Twenty-five new member organisations have been recruited in the last few months.

Presentation of our journal, *Science in Parliament*, is under constant review. We intend to introduce more colour in the near future. This will make it an even more attractive read.

A handwritten signature in black ink that reads "Andrew Miller". The signature is written in a cursive style with a horizontal line underneath the name.

Addresses and Discussions 2012

Full reports are published in Science in Parliament, see www.scienceinparliament.org.uk for further information.

24th January 2012
Report in SiP Whitsun issue 2012

Peer Review: Is it Working?

Sir Mark Walport FRS, Director, Wellcome Trust

No alternative to expert judgement; we should embrace innovation to address the challenges to and burdens associated with peer review.

Tracey Brown, Sense About Science

Peer review is not just the esoteric concern of scientific researchers. It is a system of independent scientific scrutiny that helps to safeguard the public interest in sound science.

Dr Irene Hames, Editorial Consultant

Good peer review helps improve not only manuscripts, but often the science behind them.

28th February 2012
Report in SiP Whitsun issue 2012

Ground Engineering – Why it Matters

Professor Barry Clarke, Professor of Civil Engineering Geotechnics, University of Leeds; Senior Vice President, Institution of Civil Engineers

Everything built is either on, in or with ground. Ground engineering is an essential part of construction, and ground engineers are also engaged in the extraction of minerals.

Rodney Chartres, Past Chair, Ground Forum

Good ground engineering is of great benefit to society and to Government, resulting in improved safety, better design and more economic construction.

Professor John Burland, Emeritus Professor of Soil Mechanics, Imperial College London, and Richard Jardine, Professor of Geomechanics, Imperial College London

Ground engineers need special skills which can be taught as part of MSc courses; UK take-up of places on those courses is much reduced due to increased fees.

Monday 12th March 2012

More information can be found at www.setforbritain.org.uk

SET for BRITAIN Exhibition and Competition

Posters by early-stage and early-career research scientists, engineers and technologists. The day was divided into three separate sessions:

Biological and Biomedical Science

Physical Sciences (Physics and Chemistry)

Engineering

The 2012 SET for BRITAIN event took place in the House of Commons Marquee on Monday 12th March 2012, sponsored by Andrew Miller MP, Chairman of the SET for BRITAIN organising group of the Parliamentary and Scientific Committee.

Thursday 15th March 2012

Report in SiP Whitsun issue 2012

National Science and Engineering Week Seminar
in collaboration with the Council for Mathematical Sciences

Mathematics Matters – a crucial contribution to the country's economy

Professor Sir Adrian Smith, Director General, Knowledge and Innovation, Department for Business, Innovation and Skills

Mathematics is vital to the formation and operation of policy across Government. UK mathematical excellence is under threat from international competition; one way of responding to this is by international co-operation.

Professor David Spiegelhalter FRS, Winton Professor of the Public Understanding of Risk, University of Cambridge

The clear communication of risks and uncertainty to the public is difficult, particularly when trying to achieve a balance between providing information with retaining trust; mathematical risk models are a vital tool in this process.

Malcolm MacCallum, Director, Heilbronn Institute, Bristol

The Heilbronn Institute is a partnership between GCHQ and Bristol University; UK mathematics, especially pure mathematics, makes a major contribution to UK security and intelligence.

Deirdre Hollingsworth, School of Public Health, Imperial College London

The UK is a world leader in the field of infectious disease modelling, using mathematical methods and analyses, and in the interaction between modelling and public health policy.

Jared Tanner, Professor of Mathematics of Information, University of Edinburgh
Mathematics, particularly statistics, has always played a central role in the collection and analysis of data. The need to extract meaningful information from large data sets has resulted in pure mathematics research engaging with statistical questions.

Tuesday 24th April 2012
Report in SiP Summer issue 2012

Why Would HS2 be Good for Britain?

Bridget Rosewell, Economist, Volterra Consulting

The need for High Speed Rail is fundamentally centred on the need for additional capacity on the rail network and better connectivity between cities.

Professor Andrew McNaughton FREng, Technical Director, High SpeedTwo Ltd

High speed rail technology has developed greatly in the last half century and continues to do so. Great care has been taken to design the proposed route into the landscape, using natural cuttings and tunnels to reduce the visual and noise effects.

Sir Richard Leese, Leader, Manchester City Council

The introduction of HS2 would bring significant economic benefits which spread far beyond the Greater Manchester area, linking the other major cities of the UK to address the imbalances in our economy.

Tuesday 15th May 2012
Report in SiP Summer issue 2012

Food and Gut Health

Professor Glenn Gibson, Professor of Food Microbial Sciences, University of Reading

The biological and clinical importance of resident gastrointestinal microflora in humans is becoming increasingly recognised by consumers and healthcare workers. The use of probiotics and prebiotics can modulate the composition of microflora in the human gut to beneficial effect.

Dr Linda Thomas, Science Director, Yakult UK Ltd

Probiotics are defined as "Live microorganisms which when administered in adequate amounts confer a health benefit on the host". Health benefits from their use have been shown, but, at the time of the meeting, approval had not been received to describe any products as probiotics.

Professor Simon Carding, Institute of Food Research

Manipulating the microbiota composition and/or function has enormous potential for improving gut health. Professor Carding and colleagues are working on producing new varieties of broccoli and tomatoes.

Animal Experimentation: Are EU Regulations Adequate?

Dr Judy MacArthur Clark, Head, Animals in Science Regulation Unit, Home Office
The legislation needs to ensure a careful balance between science and welfare to give the public confidence in the regulatory system. There is evidence that good animal welfare leads to better scientific outcomes.

Dr Maggy Jennings Head, Research Animals Department, RSPCA
The UK has a good piece of legislation in the Animals (Scientific Procedures) Act 1986 and should look to enhance its leadership role. The EU Directive is weaker and could reduce UK standards in a number of areas.

Dr Stephen Mitchell Lilly UK
The EU Directive strengthens the measures required to protect animals and promotes the development of means to replace, reduce and refine animal use. In the UK we should not devalue the role of the Home Office Inspectorate but allow them to maintain close working relationships with the scientists involved.

British Scientific Achievement over the Last 60 Years

Professor Dame Nancy Rothwell, President, Society of Biology; President and Vice-Chancellor, University of Manchester
Since the early 1950s Life Sciences in the UK has seen major discoveries in fundamental science, transformations in medicine and health, major impacts on food supplies with significant economic, social and health benefits.

Professor Lesley Yellowlees, President, The Royal Society of Chemistry; Professor of Inorganic Electrochemistry, University of Edinburgh
The Queen's reign began with the award of the Nobel Prize to Archer Martin and Richard Synge for the invention of partition chromatography. British chemistry discoveries are everywhere transforming our world and they are central to our economy – and to economic recovery.

Professor Brian Cox Royal Society University Research Fellow, School of Physics and Astronomy, University of Manchester
The Higgs particle, the Large Hadron Collider, the transistor, graphene have all been discovered or developed in the Queen's lifetime, involving British technology.

Energy – The Next Generation

Frans van den Heuvel Chief Executive Officer, Solarcentury

The next generation of energy is bringing about a paradigm shift. We become both energy producers and consumers – prosumers. Now the man in the street is producing and retailing energy as he feeds it into the grid.

Francis Egan Chief Executive Officer, Cuadrilla Resources Limited

The prospects for shale gas in the UK and in parts of continental Europe are very promising, based on assessments of a number of geological formations that are not dissimilar in scale to US and Canadian sites where major deposits of natural gas have been discovered.

Dr Gordon Edge Director of Policy, RenewableUK

Onshore wind power (5GW) and offshore windpower (2.7GW) generated 5% of the country's electricity in 2011. This increased by 30% during 2012, and the UK is anticipated to have 7GW and 4GW respectively available by 2014. Wind power is "variable" and the variations can be predicted in advance, making it possible to make contingency arrangements.

Annual Lunch in the Cholmondeley Room and Terrace, House of Lords

Professor John Womersley, Chief Executive Officer, Science and Technology Facilities Council

The Science and Technology Facilities Council's best known collaboration is the Large Hadron Collider at CERN, where the Higgs boson was discovered on 4 July, prompting unprecedented levels of press and public interest. The particle accelerator technology used in the LHC has led to a series of breakthroughs in other areas. The next big project is the Square Kilometre Array.

Energy – How to use less

Gillian Kelleher BASF Sustainable Construction

BASF has developed materials enabling a house to be designed with an energy consumption target of 15kWh/m². At the Building Research Establishment a disused Victorian stable block has been transformed into three energy-efficient terraced homes.

Ashley Pocock Head of Industry Change, Regulation and External Affairs Smart Metering Project, Transformation, EDF Energy

The target is for the installation of smart meters in all homes and small commercial businesses to be completed between 2015 and 2019. Although the benefits should be clear, no one will be compelled to accept such meters if they do not wish.

Professor Roger Kemp University of Lancaster

Creating coherent energy policies requires an understanding of how the different components of energy systems interact and how these relate to other policies. In the absence of coherent policies, we risk missing all three of the objectives of security of supply, affordability and environmental impact.

Tuesday 27th November
Report in SIP Spring issue 2013

Joint Briefing with POST

Ash Trees and the effects on them of *Chalara fraxinea*

Dr Peter Freer-Smith, Chief Scientific Adviser, Forestry Commission

Chalara was first found in the UK in February 2012, since when it has been found in a number of locations in the UK. It may take several years for the tree to die but the discolouration of infected wood reduces its value. There is some evidence to suggest that ash in GB (the second most planted broadleaved tree) may survive the arrival of *Chalara*.

Martin Ward, UK Chief Plant Health Officer, Defra

Standards and legislation to reduce the risk of organisms threatening our trees, crops, gardens and ecosystems are under review. Two areas where progress should be achievable are early detection and assessment of risks from new trades in plants from other continents.

Dr Monique Simmonds, Director of the Kew Innovation Unit, Deputy Keeper & Head of Sustainable Uses of Plants Group, Royal Botanic Gardens Kew, and

Sara Redstone Plant Health & Quarantine Officer, Royal Botanic Gardens Kew

The Royal Botanic Gardens, Kew, has a diverse collection of over 500 ash trees at both the Kew Gardens and Wakehurst Place sites that currently show no signs of ash dieback. These living collections provide a rich resource to further our knowledge about the factors that influence the susceptibility of ash to attack by the fungus.

Climate Change and the Polar Regions

Dr Emily Shuckburgh, Head, Open Oceans, British Antarctic Survey

A compelling reason to focus on the polar regions is that they harbour some of the key risks of rapid or irreversible change such as melting permafrost releasing methane, influx of fresh melt water disrupting the Gulf Stream and collapsing ice sheets raising sea level.

Professor Peter Wadhams, Professor of Ocean Physics, Department of Applied Mathematics and Theoretical Physics, University of Cambridge

Some climate models predict an 'ice-free' Arctic summer by 2040, which could be associated with a change in planetary albedo, leading to an acceleration of the global warming rate. A second easily detected change is an acceleration in the summer melt of the surface of the Greenland ice sheet. Another potential risk from the Arctic relates to methane release.

Dr Sheldon Bacon, National Oceanography Centre

The Atlantic supports a Meridional Overturning Circulation, which has been called the "Conveyor Belt" because it represents warm Atlantic waters travelling northwards in the upper ocean (the top kilometre), balanced by a southward transport of cold Arctic waters at depth (between about one and four kilometres depth). The MOC is responsible for delivering the heat that makes the UK climate mild.

Science in Parliament

The Journal of the Parliamentary and Scientific Committee

Science in Parliament has two main objectives:

- To provide for the scientific community an insight into the information and briefings supplied to Members of Parliament on scientific subjects.
- To keep Members of both Houses of Parliament abreast of developments in science and engineering.

Published four times a year, each issue includes:

- Authoritative addresses to the Parliamentary and Scientific Committee. Recent addresses have included those on British Scientific Achievements in the past 60 years; Energy – the Next Generation; Energy – How to use less; and Ash Tree Dieback.
 - Reports on the activities of the Select Committees on Science and Technology in the House of Commons and House of Lords
 - A summary of the briefings received by Parliamentarians from the Parliamentary Office of Science and Technology and the Science and Environment Section of the House of Commons Library.
 - The Science Directory is a source of expert advice or impartial opinion on scientific and technological subjects.
-

Enquiries to:

Science in Parliament

3 Birdcage Walk, London SW1H 9JJ

Tel: 020 7222 7085 Fax: 020 7222 7189

www.scienceinparliament.org.uk